

## Claims

[c1] We claim as our invention:

1. A golf ball comprising:

a core having a diameter of 1.35 inches to 1.60 inches, the core comprising polybutadiene, zinc oxide in an amount of 7 to 15 parts per hundred parts of polybutadiene, zinc diacrylate in an amount of 20 to 35 parts per hundred parts of polybutadiene; an initiator in an amount of 0.1 to 1.0 parts per hundred parts of polybutadiene, and tungsten in an amount of 5 to 10 parts per hundred parts of polybutadiene, the core having a Rhiele compression of 60 to 90 points and wherein the zinc diacrylate has a particle size ranging from 3 to 5 microns; an intermediate layer disposed on the core, the intermediate layer comprising an ionomer blend formed from a high acid ionomer resin neutralized with zinc, a high acid ionomer resin neutralized with sodium, and a terpolymer neutralized with magnesium, the cover having a flexural modulus ranging from 50,000 psi to 65,000 psi, a Shore D hardness ranging from 57-65; and a cover disposed on the intermediate layer, the cover composed of a thermosetting polyurethane material and having a thickness ranging from 0.020 inch to 0.045 inch.

[c2]

2. A golf ball comprising:

a core having a diameter of 1.35 inches to 1.60 inches, the core comprising polybutadiene, zinc oxide in an amount of 7 to 15 parts per hundred parts of polybutadiene, zinc diacrylate in an amount of 20 to 35 parts per hundred parts of polybutadiene; an initiator in an amount of 0.1 to 1.0 parts per hundred parts of polybutadiene, and tungsten in an amount of 5 to 10 parts per hundred parts of polybutadiene, the core having a Rhiele compression of 60 to 90 points and wherein the zinc diacrylate has a particle size ranging from 3 to 5 microns; and a cover disposed on the core, the cover comprising an ionomer blend formed from a high acid ionomer resin neutralized with zinc, a high acid ionomer resin neutralized with sodium, and a terpolymer neutralized with magnesium, the cover having a flexural modulus ranging from 50,000 psi to 65,000 psi, a Shore D hardness ranging from 57-65.

3. A core for a golf ball, the core comprising:

the core comprising polybutadiene, zinc oxide in an amount of 7 to 15 parts per hundred parts of polybutadiene, an initiator in an amount of 0.1 to 1.0 parts per hundred parts of polybutadiene, and tungsten in an amount of 5 to 10 parts per hundred parts of polybutadiene, and zinc diacrylate in an amount of 20 to 35 parts per hundred parts of polybutadiene wherein the zinc diacrylate has a particle size ranging from 3 to 5 microns, wherein the core has a Rhiele compression of 60 to 80 points and a coefficient of restitution at 143 feet per second of at least 0.78.